



# ***AlcoHAWK® PT500***

## **Owner's Manual**

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# INTRODUCTION

## Overview

The AlcoHAWK® PT500 is a breath alcohol tester designed to test for the presence of alcohol in the breath. This product estimates blood alcohol concentration (BAC) in seconds. Please read this entire manual before using this product.

## Basics of Breath Alcohol Testing

When a person consumes alcohol, the human body absorbs alcohol into the bloodstream. The alcohol in the bloodstream then exchanges with air deep in the lungs. The percent of alcohol in a person's blood (BAC) is proportional to the percent of alcohol in a person's breath (BrAC). Breath alcohol testers measure a person's deep-lung air alcohol level and convert it into BAC.

## Effects of Alcohol

Variations among individuals and other factors, such as altitude and air temperature, affect the degree of intoxication. Some individuals may become intoxicated at low BAC levels. A low BAC on a breath alcohol tester does not mean that a person's reaction times can respond to any emergency encountered. Individuals should not drink alcohol and drive or use any machinery after consuming alcohol. There is no safe way to drive under the influence of alcohol. Even one drink can make you unsafe.

<b>BAC</b>	<b>Dose-Specific Effects<sup>2</sup></b>
0.020-0.039% <sup>3</sup>	Generally no loss of coordination. Slight euphoria or loss of shyness. Depressant effects are not apparent.
0.040-0.06%	General feeling of well-being, relaxation, lower inhibitions, and sensation of warmth. Euphoria. Some minor impairment of reasoning and memory. Lowering of caution. Driving skills may be impaired.
0.070-0.09%	Slight impairment of balance, speech, vision, reaction time, and hearing. Euphoria. Judgment and self-control are reduced. Caution, reason and memory are impaired. Driving skills are always impaired.
0.100-0.129%	Significant impairment of motor coordination and loss of good judgment. Speech may be slurred. Balance, vision, reaction time and hearing will be impaired. Euphoria.
0.130-0.159%	Gross motor impairment and lack of physical control. Blurred vision and major loss of balance. Euphoria reduced and dysphoria begins to appear.
0.160-0.249%	Dysphoria (anxiety, restlessness) predominates. Nausea may appear. The drinker has the appearance of a "sloppy drunk."
0.250%-0.299%	Needs assistance in walking. Total mental confusion. Dysphoria with nausea and some vomiting.
0.300%-0.399%	Loss of consciousness.
0.400% +	Onset of coma, possible death due to respiratory arrest. <sup>4</sup>

<sup>2</sup> Bailey, William J., *Drug Use in American Society*, 3rd ed., Minneapolis: Burgess, 1993.

<sup>3</sup> Some individuals may experience impairment at BAC levels at .03% or even lower.

<sup>4</sup> Death can occur at a lower BAC level in some individuals.

# PREPARATION

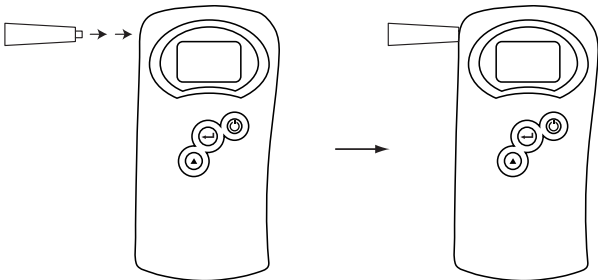
## Install the Batteries

Apply a small amount of pressure on the battery compartment cover located on the back of the product. Push down and away from the product to release the cover. Install 2 AA batteries and slide compartment cover back in place.

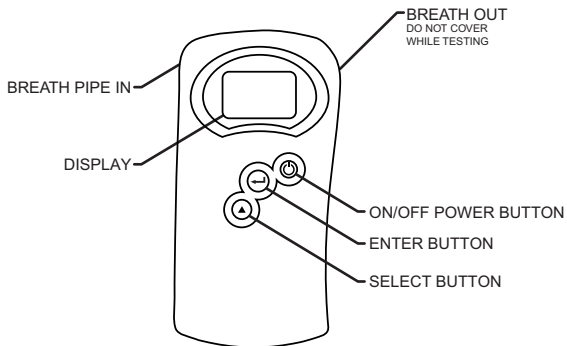


## Insert a New Mouthpiece

Insert a new mouthpiece firmly into the BREATH PIPE IN hole on the left side of the product. Insert a new mouthpiece before each test.






# COMPONENTS DIAGRAM



# OPERATION



Wait **20 minutes** after the test subject smokes, eats or drinks before testing. Failure to wait 20 minutes can give inaccurate BAC readings and damage the sensor.


- Step 1)** Press and hold the ON/OFF power button  for 1 second until you hear a BEEP. The unit reads “Initializing...” as it prepares for use.
- Step 2)** The screen displays “Test” and “Options”. To start a “Test”, press the ENTER button . The unit displays “Blow Now”. Take a deep breath, wrap your lips around the new mouthpiece and blow steadily for five (5) seconds. The unit beeps when the test subject starts blowing and beeps again after obtaining the sample. Do not cover the BREATH OUT hole.
- Step 3)** The unit displays “Processing” while analyzing the sample. After about three (3) seconds, the unit then displays the estimated BAC.
- Step 4)** The unit shows the test result for 90 seconds before beeping twice and shutting off.
- Step 5)** To turn off the unit, press and hold the ON/OFF power button  for 1 second.

## READ THE RESULTS

The displayed result is an estimate of the test subject's BAC. A breath alcohol tester cannot determine the exact BAC in the blood of the test subject. Correlation between BrAC and BAC depends on many factors, such as temperature and health conditions. Therefore, only use this device as a tool to screen for the presence of alcohol.




Many people consider a 0.02% or greater a positive test for alcohol in “zero tolerance” screening. Most states have 0.08% as the legal BAC limit for tasks such as operating a motor vehicle. Some states prohibit driving commercial vehicles or any vessel with a 0.04% BAC or higher. Many states prosecute individuals for driving under the influence at any level.

## ERROR MESSAGES

Error Message	Cause and Course Of Action
Insufficient Breath Sample	The user failed to provide a sufficient breath sample. Repeat test and have user blow firmly and steadily for the entire test.
	Low Battery - Install two (2) new alkaline AA batteries.





## MENU OPTIONS

When the screen displays “Test” and “Options”, press the SELECT button  to view the menu options. Use the SELECT button  to move down through the menu options. Use the ENTER button  to enter the selected menu option.

### Alarm Point

The unit will read “High” if the BAC reading exceeds the alarm point setting. The default setting is 0.020% BAC. You can change the alarm point from between 0.020%-0.080% BAC.

To change the setting press the SELECT button  until the unit shows the desired value on the screen. Press the ENTER button  to save the setting.

### Temperature Scale



You can switch between Celsius (C) and Fahrenheit (F) for the temperature sensor. The default setting is Fahrenheit (F).

To change the setting press the SELECT button  until the unit shows the desired scale. Press the ENTER button  to save the setting.

### Blowing Time

You can adjust the blowing time from three (3) to eight (8) seconds. The default setting is five (5) seconds. Five (5) seconds is the standard time to obtain a proper sample.

**Caution: Only adjust this setting if the test subject is not able to exhale for 5 seconds or if the subject can easily exhale more than five (5) seconds.**


To change the setting press the SELECT button  until the unit shows the desired number of seconds. Press the ENTER button  to save the setting.

## Convert Units

You can change the unit of alcohol concentration shown for tests. You can choose between %BAC (U.S.A), g/L, or ‰BAC. The default setting is %BAC (U.S.A) (the U.S.A standard).

To change the setting press the SELECT button  until the unit shows the desired conversion. Press the ENTER button  to save the setting.

## PRECAUTIONS

1. After drinking, smoking and eating, users should wait at least 20 minutes before testing.
2. Avoid testing in strong winds, in a closed room with a heavy amount of smoke, or where alcohol is present.
3. When the battery low symbol  appears replace the AA batteries.
4. Do not blow cigarette smoke, food or liquid into the unit.
5. Only use the unit in a temperature range of 10 - 40°C or 50 - 104°F. Operation above or below this range may affect the results.
6. BAC CHANGES OVER TIME DEPENDING ON MANY FACTORS. BAC AT ONE TIME CAN DIFFER FROM BAC A FEW MINUTES LATER.
7. DO NOT USE THIS PRODUCT WITH AN IGNITION INTERLOCK DEVICE OR WHILE INSIDE A VEHICLE.
8. YOU CANNOT USE THE RESULTS OF THIS PRODUCT IN COURT.
9. DO NOT USE THIS DEVICE TO DETERMINE IF YOU OR ANYONE ELSE CAN OPERATE ANY VEHICLE OR MACHINERY.
10. DO NOT LET YOURSELF OR ANYONE ELSE DRINK AND DRIVE. ALWAYS USE A DESIGNATED DRIVER WHEN YOU OR ANYONE ELSE DRINKS ALCOHOL.

# SPECIFICATIONS

Dimensions	5" x 2.63" x 1.25" (12.7 cm x 6.68 cm x 3.18 cm)
Weight	3.6 oz (102 g) without batteries; 5.2 oz (147 g) with batteries
Power Supply	Two (2) AA alkaline batteries
Battery Life	200 tests <sup>1</sup>
Sensor Technology	<i>PT Core™</i> Electro-chemical Fuel-cell Sensor
Warm-UP Time	10-20 seconds <sup>1</sup>
Blowing Time	5 seconds (default setting, adjustable from 3-8 seconds)
Response Time	3 seconds <sup>1</sup>
Operating Temperature	10 - 40°C (50 - 104°F)
Detection Range	0.000 - 0.400% BAC
Warranty	1 Year Limited Warranty

<sup>1</sup> Estimates, results may vary.

## ACCESSORIES

Visit our online store at [www.q3ats.com](http://www.q3ats.com) to purchase the following accessories:

- Mouthpieces
- Soft Carrying Case
- Hard Carrying Case

# VERIFICATION AND CALIBRATION

Calibration of the AlcoHAWK® PT500 occurs during manufacturing using advanced alcohol simulation equipment. The manufacturer passing known alcohol concentrations through the sensor to set baseline values for testing. During testing, the unit compares users' breath samples to these baseline values. If the verification determines that the BAC is not consistent with actual BAC levels, a technician calibrates the unit. The accuracy of breath alcohol testers can fluctuate after six to twelve months, depending on frequency of use and operating conditions.

If the unit is providing inconsistent results, unusually high or low readings, or no readings at all, a professional needs to recalibrate the unit. **A technician should recalibrate this unit at least every six to twelve months. Monthly calibrations may be required if the unit is used daily.**

For recalibration or support, please visit [www.q3i.com](http://www.q3i.com) or call 888-399-1687. During recalibration, a technician will perform a diagnostic check on the unit and reset the baseline sensor values.

## ONE-YEAR LIMITED WARRANTY

Q3 Innovations, LLC (Q3I) warrants this unit to be free from defects in workmanship or material (excluding calibration) under normal use for ONE (1) YEAR from the date of retail purchase by the original purchaser ("Warranty Period"). **The warranty covers parts and labor on covered repairs; software updates if applicable; and ground freight back to the customer (USA only). Except as provided above or applicable law, Q3I provides this product "as is."**

**If a defect arises and Q3I receives a valid claim within the Warranty Period, at its option, Q3I will either (1) repair the product, (2) exchange the product with a product that is new or which has been manufactured from new or serviceable used parts and is at least functionally equivalent to the original product, or (3) refund the**

**purchase price of the product. When a refund is given, the return product to Q3I becomes Q3I's property. The warranty does not cover freight to Q3I. The warranty is void if anyone tampers with, maliciously damages, or physically abuses the unit.**

This warranty is limited to the original consumer purchaser and is not transferable to, or enforceable by, any subsequent owner.

**For warranty service during the Warranty Period, please follow the below instructions:**

1. Call 888-399-1687 or email [service@q3i.com](mailto:service@q3i.com) to obtain an RMA number and shipping instructions. Return the unit postage paid, insured and in suitable packaging.
2. For your protection, obtain a proof of delivery receipt. Shipping costs are your responsibility.
3. You must enclose the following with the unit:
  - a. The completed RMA form (available at [www.q3i.com/support.php](http://www.q3i.com/support.php))
  - b. Your name, complete return address and written description of the problem. (No PO Box please.)
  - c. Your telephone number to reach you during normal business hours.
  - d. A copy of your dated sales receipt or invoice.

## **DISCLAIMER**

Q3I makes no warranties, expressed or implied, as to the ability of this unit to determine whether, or to the extent to which, a test subject's mental or physical functionality, or judgment, is impaired by blood alcohol including whether the test subject is intoxicated, under any definition of that word. Q3I expressly disclaims any liability for incidental, special, or consequential damages of any nature under any legal theory.

Any act or failure to act based upon a reading from this product is at the test subject's or user's own risk. Q3I assumes no responsibility for consequences to users or test subjects who use this product and are later under the influence of alcohol or to have had their judgment or any mental or bodily function impaired by alcohol. Correlation between BrAC and BAC depends on many variables, such as temperature and health conditions of the test subject. A safe or low BAC reading does not mean that the test subject's physical or mental performance or judgment (including reaction times) can respond to any emergency encountered. A breath alcohol tester cannot determine the exact concentration of alcohol in the blood of a test subject.

Q3I does not warrant that the operation of the product will be error-free. Q3I is not responsible for any consequences arising from failure to follow instructions or relating to the product's use. This warranty does not apply: (a) to consequences caused by accident, abuse, tampering, misuse, flood, fire, earthquake or other external causes; (b) to consequences caused by operating the product outside the permitted or intended uses described by Q3I; (c) to consequences caused by service performed by anyone who is not a representative of Q3I or a Q3I Authorized Service Provider; or (d) to a product or part that has been modified to alter functionality or capability without the written permission of Q3I.

TO THE EXTENT PERMITTED BY LAW, THIS WARRANTY AND THE REMEDIES SET FORTH ABOVE ARE EXCLUSIVE AND IN LIEU OF ALL OTHER WARRANTIES, REMEDIES AND CONDITIONS, WHETHER ORAL OR WRITTEN, STATUTORY, EXPRESS OR IMPLIED. AS PERMITTED BY APPLICABLE LAW, Q3I SPECIFICALLY DISCLAIMS ANY AND ALL STATUTORY OR IMPLIED WARRANTIES, INCLUDING, WITHOUT LIMITATION, WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE AND WARRANTIES AGAINST HIDDEN OR LATENT DEFECTS. IF Q3I CANNOT LAWFULLY DISCLAIM STATUTORY OR IMPLIED WARRANTIES, THEN TO THE EXTENT PERMITTED BY LAW ALL SUCH WARRANTIES ARE LIMITED TO THE DURATION OF THE EXPRESS WARRANTY AND TO THE REPAIR OR REPLACEMENT SERVICE AS DETERMINED BY Q3I IN ITS SOLE DISCRETION.

Q3I does not authorize any Q3I reseller, agent, or employee to make any modification, extension, or addition to this warranty. If anyone determines any terms to be illegal or unenforceable, the legality or enforceability of the remaining terms shall not be affected or impaired.

EXCEPT AS PROVIDED IN THIS WARRANTY AND TO THE MAXIMUM EXTENT PERMITTED BY LAW, Q3I IS NOT RESPONSIBLE FOR DIRECT, SPECIAL, INCIDENTAL OR CONSEQUENTIAL DAMAGES UNDER ANY LEGAL THEORY, INCLUDING BUT NOT LIMITED TO LOSS OF USE; LOSS OF REVENUE OR INCOME; LOSS OF ACTUAL OR ANTICIPATED PROFITS (INCLUDING LOSS OF PROFITS FROM A CONTRACT); LOSS OF THE USE OF MONEY; LOSS OF ANTICIPATED SAVINGS; LOSS OF BUSINESS; LOSS OF OPPORTUNITY; LOSS OF GOODWILL, OR LOSS OF REPUTATION.

Some countries, states and provinces do not allow the exclusion or limitation of incidental or consequential damages or allow limitations on how long an implied warranty or condition may last, so the above limitations or exclusions may not apply to you. This warranty gives you specific legal rights, and you may also have other rights that vary by country, state or province. This limited warranty is governed by and construed under the laws of the country where the product was purchased.



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